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ABSTRACT

A broad outline is presented of process education, defined as a humanistic view of education focusing on the learner and the development of those skills which are believed to be central and important to functioning in the reality of present and future decades. Also discussed is how career and vocational education might be incorporated in such a global paradigm. Historical attempts to define the purpose of American education are summarized and then related to the development of career and vocational education. A developmental curriculum model for career education is presented as a means to the integration of process and career education. Scholars, researchers, curriculum theorists, and policy makers in career education are challenged to build on the theories and trends identified in developing a more humanistic educational system. (TA)

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CAREER AND VOCATIONAL EDUCATION IN THE 1980s:

TOWARD A PROCESS APPROACH

Final Project Report
RDC-A6-244
RDC-B7-244

Larry J. Bailey
Project Director

sponsored cooperatively by

Occupational Education Program
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ACKNOWLEDGMENTS

The research presented in this report is the fifth in a number of projects conducted by the director under contract with the Research and Development Section, Department of Adult, Vocational and Technical Education, Illinois Office of Education. Sincere appreciation is expressed for the opportunity to continue development of the concept of career education. In a very real sense, the Department of Adult, Vocational and Technical Education has led the nation in conceptualizing and developing career education. The Department's leadership, both State and National, is to be applauded.

A debt of gratitude is owed Hank Cole for providing the inspiration to look beyond career education to a broader view of educational purpose. His book on Process Education is a giant in the literature of curriculum theory. The opportunity to know and work with Professor Cole has been a highlight in the author's professional development.

The difficult and time consuming tasks of researching and abstracting the vast body of literature reported herein was the responsibility of Diane Hendrickson. The relative quality and comprehensiveness of the report is due to her ability and dedication.

The sabbatical leave granted to the author in Fall Semester 1975 by Southern Illinois University is appreciated. The paper could not have been completed without the time provided to read and think.

Professors Henry Cole, Rupert Evans and David Tiedeman reviewed the manuscript prior to its final typing. Their many comments and suggestions were extremely helpful in improving the final draft.

Finally, the director accepts responsibility for the presentation and interpretation of the data reported. Any inconsistencies or limitations which may exist are his own.

PREFACE

In 1968, I wrote my first professional article entitled Theories of Vocational Behavior. My purpose in writing the article was to convey to my vocational education colleagues that the theoretical foundations existed for developing more comprehensive vocational education programs. In 1969 and 1970, I directed a small research project for the Illinois Division of Vocational and Technical Education to compile an annotated bibliography on Facilitating Career Development. This compendium contained a synthesis of publications, programs and techniques on "occupational information and vocational guidance." Even though I had not yet fully articulated it, I had a strong intuitive sense that something like "career development education" was in the process of evolving. It was! Since 1971 the concept has come to be called "career education."

I have a similar intuitive sense in 1976. The theoretical foundations have been laid for a new, global, pluralistic conception of education. My good friend Hank Cole calls it "process education." It is a humanistic view of education which focuses on the learner and the development of those skills which are believed to be central and important to functioning in the reality of present and future decades.

In the pages that follow, I have attempted to sketch a broad outline for what I perceive this concept to be and to mean. I have further illustrated how career and vocational education might be incorporated in such a global paradigm. The latter part of the paper contains excerpts from a variety of scholars which complement my preliminary prospectus. The concepts which are discussed in the body of the paper, and the excerpts provided in the appendix, collectively represent a body of literature and an evolutionary trend that is too large and important to be ignored. I regret that I am presently unable to provide a more definitive theory. However, I invite my colleagues to join with me in a critical evaluation and consideration of the ideas contained within toward developing a more humanistic educational system.

Larry J. Bailey
June 1976

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> I shall take it as self-evident that each generation must define afresh the nature, direction and aims of education to assure such freedom and rationality as can be attained for a future generation. For these are changes both in circumstances and in knowledge that impose constraints on and give opportunities to . . . each succeeding generation. It is in this sense that education is in constant process of invention. (Bruner, 1966, 23).

CHAPTER ONE

INTRODUCTION AND RATIONALE

The statement above by Jerome Bruner conveys both the underlying rationale for this work as well as its implicit purpose. The author's original motive for writing this monograph was to continue the development of a career education curriculum model first introduced in Bailey (1971) and later augmented in Bailey and Stadt (1973), Bailey (1975), and Bailey and Cole (1975). In researching the substantative bodies of literature in educational histroy, educational theory, and curriculum theory and principles, the author became increasingly conscious of the disparity between the state-of-the-art in career and vocational education theory and practice (these terms are not being used synonymously) and that of the education and curriculum fields at large. For example, conventional discussions of "philosophy" and "theory" of vocational education seldom mention nor seem to be effected by prominent philosophies and theories of education. Vocational education has an often discussed and identifiable rationale, but seems not to have a strong theoretical base. Similarly, many of the more popular discussions of career education, as a response to the call of educational reform, fail to relate career education to previous reform movements or to present

and evolving ones. These two examples are illustrative of serious deficiencies that must be corrected. As Chapter Two, Chapter Five, and Appendix A will demonstrate, the future course of education seems to be in the direction of more humanistic aims and more pluralistic delivery systems. Career and vocational educators cannot afford to preoccupy themselves with parochial concerns at the expense of broader curriculum aims and modes. As Hruska (1974, p. 56) observes, "For years vocational educators have been doing a lot of good things for the wrong reasons and in so doing have settled for far too little."

As a result of a conscious awareness of the contributions of general curriculum theory and principles to his own professional development, the writer is assuming that others in his field might similarly profit from exposure to these bodies of literature. Consequently, he is expanding the focus of this monograph from simply a reformulation of his own personal curriculum concerns in career education to a broader synthesis of the educational literature which appears essential to developing more valid statements of the relationship between career and vocational education and among these and other views of curriculum aims. In short, this work attempts to accomplish two purposes: (1) to provide a primer on educational history and curriculum theory and principles; and, (2) to provide a prospectus for a global, learner-oriented curriculum paradigm which includes career and vocational education as one of its major components.

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Hruska, J. Vocational education - all the way or not at all. In D. W. Allen and J. C. Hecht (Ed's). Controversies in education, Philadelphia: W. B. Saunders, 1974, 48-56.

> Curriculum innovations of the past decade have attempted to solve the difficult problems of curriculum planning and development with scant attention to the historical dimensions of these problems (Beliack, 1969, p. 299).

CHAPTER TWO

THE HISTORICAL PURSUIT OF PURPOSE FOR AMERICAN EDUCATION

This monograph was written to offer a prospectus of the role of career and vocational education in the next decade. As it was being written, calls for the reform of education dominate in the popular and professional literature. One might conclude that calls for educational reform in the early and mid-1970 is a recent phenomenon. Such is not the case. The reform of education, in many and varied forms, has been advocated for at least 150 years. Goodlad (1966, p. 91) has observed that "A substantial number of the new crop of reformers have approached the persistent, recurring problems of curriculum construction in the naive belief that no one had looked at them before." The present social milieu and economic climate are much different from the past, but the concern of contemporary reformers with respect to "What are schools for?" is not essentially different.

A review of the history of curriculum thought and practice can be instructive in several ways. (1) It identifies forces that have persistently affected curriculum thinking. (2) It sheds light on variables involved in changing the curriculum. (3) It identifies the historical role of professional educators in attempts to reform education. (4) It shows why previous reform proposals have or have not

been successful. In short, lessons from the past can help to make present and future curriculum decisions more rational, and thus, more likely to enjoy ultimate success. History as a foundation for curriculum theory is summarized in the pages to follow. Printed works in curriculum are one of the larger bodies of literature in education. The curriculum literature overlaps with related educational areas such as philosophy, theory, and evaluation. Excellent summaries of the curriculum literature are to be found in the Review of Educational Research (1960, 1963, and 1969) and the Encyclopedia of Educational Research (1960, pgs. 275-280, 602-607, and 908-914). Several more recent works are noted in the bibliography at the end of this chapter.

This chapter attempts to summarize the changing nature of education during the last two hundred years. Six broad historical periods are discussed which seem to approximate six major evolutionary periods. Within each period, selected dates, events, and conditions are identified to note important milestones having direct relationship to educational thought and purpose.

The National Period: 1776-1830

The period in education during and immediately following the American Revolution was intimately related to the young country's evolving concept of a nation. "Although the basic beliefs and assumptions which form the nucleus of a national philosophy are for the most part held unconsciously, there was at least one time in this nation's history when they were brought into conscious focus. This time was at the nation's founding, and the philosophy was made conscious and articulated

by a few leaders - generally referred to as the 'founding fathers'" (Best and Sidwell, 1967, p. 100). Thomas Jefferson penned what is probably the key concept in our national philosophy when he wrote: "We hold these truths to be self-evident, that all men are created equal...".

According to Best and Sidwell (1967, p. 102), the concept of equality has a great deal to do with the history of American education. Equality before the law could not be operationally exercised without education. "Ignorance was the deadly enemy of democratic government; education was its bulwark."

Between 1776 and 1830, educational thought and practice were materially affected by changes which occurr d in American life.[1] Changing conditions in American society were largely responsible for four major lines of development in American education, which are abridged in the following discussion from Edwards and Richey (1963, pp. 208-256). First, there came to be a growing recognition of education as a legitimate and necessary function of government.[2] Sentiment in favor of state intervention in the field of education is evidenced by (a) plans for a national system of education advanced by noted publicists, (b) advocacy of public education on the part of political leaders, (c) grants of land for the aid of education by the federal government, (d) provisions relating to education in state consitutions,

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[1]See Edwards and Richey (1963, pp. 185-207) for a discussion of such "intellectual and social trends".

[2]It should be recalled, however, that the U.S. Constitution was silent on the subject of education. Because the founding fathers were suspicious of a powerful central government, education became a function of the several states.

(e) state aid for education in various forms, (f) legislative enactments in regard to public schools, and (g) the establishment of a number of state universities.

A second theme of educational development during this period was the widespread attempt to extend the benefits of education to larger numbers through various philanthropic agencies. The Sunday-school movement, the infant-school movement, and the "monitorial system of institutions" are examples of this type of development.

A third trend was the increased emphasis on private educational institutions, particularly the "academy". Sidwell and Best (1967, p. 102) note that the academy movement began precisely to provide operationally for equality of economic opportunity. The academies were truly a product of the age. Whereas the earlier Latin grammar school had served primarily the interests of the upper class for a classical education, the academies were a response to the needs of a rising middle class for a more practical education. Eventually, the academy was superceded by the publically controlled and supported high school.

The fourth major theme in American education during this period was that of expansion and enrichment of the curriculum. In the elementary schools, the teaching of spelling and reading was materially improved; the teaching of arithmetic was popularized; English grammar became a common subject; and geography and history were introduced. Changes in the curriculum at the secondary level were especially significant. A single academy might offer as many different subjects as were demanded by the student including: Latin, Greek, English grammar, geography, Kane's criticism, algebra, descriptive geometry, engineering,

natural philosophy, trigonometry, rhetoric, Roman antiquities, Euclid, surveying, French, U.S. history, bookkeeping, mapping, physical geography, Grecian antiquities, composition, and declamation. The college curriculum also underwent a considerable change. Although divinity and Latin and Greek retained their importance, the curriculum took on more of a diverse and practical character. For the first time in an American college, the elective system was introduced. Another recourse was the establishment of special colleges such as law and medicine.

Common School Movement: 1830-1880

The period approximately 1830 to 1880 was characterized by what has been called the "common school movement" (Edwards and Richey, 1963; Mason, 1972; Best and Sidwell, 1967). The period derived its distinctive character from the election of Andrew Jackson in 1828 and the beginning of the "era of the common man". This was the era in which the common man (through Jackson) gained the power to demand equality. Unlike Thomas Jefferson, who advocated the classical liberal arts curriculum as the standard for education, Jackson held to an equalitarian doctrine of all knowledge and ability. That is, according to Jackson, attainments of a farmer or a merchant were on the same level as the accomplishment of a classically educated scholar.

Horace Mann was one of the first to employ Jacksonian democratic principles to the actualization of a new educational concept - the "common school" (not a school for the common man, but a school common to all men). Mann and others of like mind (e.g., Barnard, Wiley, Mills) led in the definition of the scope, purpose and philosophy of the American, public, tax-supported school. By 1865, despite uneven

development, the principle of public support of common schools had taken root and the American people were definitely committed to their support (Thayer, 1965, p. 86). The success of the common school movement, according to Best and Sidwell (1967), was ultimately assured by the fact that its basic principle of equality was in accord with the unconsciously held philosophy of the nation. Another significant observation of Best and Sidwell was that the success of the common school was achieved only because education was allied with political and social leaders. Mann was able to generate the means to actualize his dream of a common school by using political methods in a realistic appeal to the powers which controlled effective choice.

Expansion and Beginnings of Progressivism: 1880-1920

By about 1880 the basic structure of American education was fixed, i.e., education was universal, tax-supported, free and compulsory.[3] From this point forward, the evolution of education began to diverge in many directions. As a result, it becomes much more difficult to synthesize educational events around a characteristic, organizing theme. In order to maintain the character of this monograph as a primer on the past, present, and future of education, henceforth a topical format will be utilized to highlight significant dates, events, persons and organizations. Introductory remarks and summary statements will be used when necessary to focus on major periods and themes, and to obtain closure.

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[3]Katz (1971, p. xx) maintains that education by 1880 was also "bureaucratic, racist, and class-biased". Katz's radical work is must reading for the person serious about reforming American education.

1880 — The education thinking of the German philosopher Herbart was introduced into American education. The American Herbartians pushed the search for a scientific, psychological basis for education. This led to the formation of the National Herbart society (later changed to the National Society for the Study of Education) and to the formation of a university discipline of "education". This also led to development of the five step teaching method (preparation, presentation, comparison and abstraction, generalization, and application).

1890-1920 — E. L. Thorndike and C. Judd began studying the curriculum quantitatively and scientifically as they opened an era of mental judgment.

1893 — Rice's "On Public School System: A Summary", The Forum. Results of a first-hand survey of the nation's schools. Scandalous situations (political manipulation, incompetent faculties, corrupt practices) in the great majority of schools reflected a generally apathetic public.

1893-1918 — In the U.S. toward the close of the last century, the National Education Association (NEA) very nearly remade elementary and secondary school courses via a series of influential committees and commissions.

Committee of Ten on Secondary School Studies (1893). Summarized the "mental discipline" thinking of the preceding generation: high school was designed for the intellectually elite as a college preparatory institution, and the best way to improve intellectual ability was to discipline the mind on the material of the languages, the humanities, and the sciences.

Committee of Fifteen on Elementary Education (1895). Defined a six year sequence for grades 7-12 and specified course requirements more clearly. Urged concentration and correlation of subjects taught in the elementary schools. Although the Committee had observed that the child (not subject matter) was the guide to the teachers efforts, its report concentrating on subject matter continued to influence educator's perceptions of the mission of the high school as a college preparatory institution.

Committee on College Entrance Requirements (1899). Approved restricted election of subjects by high school pupils, early completion of high school by gifted pupils, acceptance of a years work in any subject as counting toward college entrance, and extension of the high school program to six years. The report of this committee marked the beginning of the unit-system which has dominated secondary education.

Committee on the Economy of Time in Education (1911). Advocated child-centeredness in learning. As a consequence of this committee's work, art, music, handicrafts, and health education became recognized subjects in the elementary and secondary schools.

Commission on the Reorganization of Secondary Education (1918). Enunciated the famous "Seven Cardinal Principles of Secondary Education": (1) health, (2) command of fundamental processes, (3) worthy home membership, (4) vocation, (5) citizenship, (6) worthy use of leisure, and (7) ethical character. Favored the comprehensive high school, embracing both vocational and academic curricula in one unified organization. Marked a sharp departure from college preparatory studies to student-oriented, life-centered, and socially-directed.

1896 Dewey founded the Laboratory School at the University of Chicago.

1910 The junior high school was organized about this time as a result of the recognition that the upper elementary grades often repeated the content of earlier grades, and that the onset of adolescence required a different type of school organization.

1916 Dewey's Democracy and Education. Since publication of this work, not a single, major statement of goals for American education has omitted reference to individual prerogatives: worthy use of leisure time, self-realization, knowledge of self.

1917 Smith-Hughes Act. Public education for occupations which require less than a baccalaurete degree was born, i.e., vocational education. Established the principle of separate federal funding for vocational education.

1918 Bobbitt's The Curriculum. First book to propose operational definitions for curriculum. The beginning of the scientific study of curriculum.

1919 Progressive Education Association founded. What had been a loosely formed movement against the mental discipline approach and formalism in education became an organized movement.

According to Cremin (1961, p. 22) "The progressive movement in education begins with Rice precisely because he saw it as a movement... His Forum series was the first to weave the many strands of contemporary protest into a single uniform program. It was the first to perceive the

educational problem as truly national in scope and it was the first to apply the technique of muckraking in attacking the political corruption and professional intransigence infecting the schools."

The Heyday of Progressive Education: 1920-1945

Prior to World War I, progressive education was oriented about the purpose of social reform through the schools. More particularly, "... it was the school that was to be the nucleus of social reform; the progress of the individual and society would be effectively generated by an education articulated to real life, its problems, and areas for reform" (Best and Sidwell, 1967, p. 249). The traditional school was, for the progressives, the epitome of all educational evil. A convenient strawman, the traditional school was simply a school that was more attuned to a simple agrarian society rather than a highly complex industrial culture. The progressive vision of change was to reform the schools to cope with the realities of the present.

After World War I, progressive education took an amazing variety of forms, often somewhat contradictory in nature. Best and Sidwell describe progressive education as an "attitude" towards education which placed the needs and interests of the child at the core of the curriculum. Schaefer (1971) identifies the following elements of progressive education on which there was relative consensus by about 1920.

1. Education must take account of the developmental needs of children.
2. Learning cannot be externally imposed but rather must involve activity of the mind of the learner.

3. Knowledge is gained through participation in social life.

4. Curricular decisions may be improved by application of the scientific method.

5. Curriculum and instruction must take account of individual differences in learners.

6. Curriculum and instruction must take account of the needs of society.

7. Schools in a democracy should maximize development of the individual.

In general terms, the elementary school was the focus of reform during the 1920's, with the high school receiving the greater attention during the 1930's. As a result of the crisis in society caused by the economic collapse of the depression and the threat of social and political upheaval, an emphasis on "social reconstruction" emerged in the 1930s. After World War II another form of progressivism called "life adjustment" education was advanced prior to the movement's eventual demise.

Few would argue with the statement that John Dewey was the outstanding spokesman for the progressive education movement. Other progressive-oriented leaders during the 1920 and 1930s include William Kilpatrick, Boyd Bode, Harold Rugg, and George Counts. For a thorough account of various schools of thought within the Progressive Education Movement the reader should consult Cremin's chapter (1962, pp. 179-239) on "Scientists, Sentimentalists, and Radicals."

1924 Progressive Education journal founded.

1925 Kilpatrick's Foundations of Method. The important thing in education (according to Kilpatrick) is to insure that the purposes and plans of education are those of the learners, not the teachers.

1928 John Dewey assumed the presidency of the Progressive Education Association (PEA). Occupied the office until his death in 1952.

1928 Rugg and Shumaker's The Child-Centered School. "...the characteristic progressivist work of the twenties" (Cremin, 1961, p. 183).

1932-1940 "Eight Year Study." An experimental project conducted by the PEA's Commission on the Relation of School and College involving thirty secondary schools throughout the country to explore new possibilities in curriculum and teaching. The findings were published in a five-volume series in 1942. See Thayer (1965, pp. 302-307) for a discussion of related publications. The "dual conception of experience and of needs" assumed importance in these PEA commissions and publications.

1932 Count's Dare the Schools Build a New Social Order. Too long had the schools dealt only with the symptoms of social ills, Counts declared; now they had to act directly to cure the disease itself in reforming the very basic order of society.

1933 The Educational Frontier edited by Kilpatrick. "...the characteristic progressivist statement of its decade" (Cremin, 1961, p. 230). Became the theoretical basis for the call to action on the social frontier of education.

1934 The Social Frontier: A Journal of Educational Criticism and Reconstruction was inaugurated with Counts as editor.

1937 Educational Policies Commission, (NEA), The Unique Function of Education in American Democracy. Urged schools and colleges to reexamine their administrative structure and their instructional programs in the light of their responsibilities and potential contributions to the democratic way of life. The importance of this challenge needs to be understood in relation to the imminence of WW II and the impending confrontation of the democratic and totalitarian powers.

1937 American Youth Commission, (ACE). Secondary Education for Youth in Modern America. Report said that secondary schools should educate youth for (1) citizenship, (2) home membership, (3) vocational efficiency, (4) leisure life, (5) physical health, (6) mental health, (7) continued learning.

1938 Educational Policies Commission (NEA), The Purposes of Education in American Democracy. Undertook to define on a national scale the major purposes of public education.

Asserted that the general end of education is the fullest possible development of the individual within the framework of our present industrialized society.

1938 — Peak of the progressive education movement (Cremin, 1961, p. 324).

1938 — Bode's Progressive Education at the Crossroads. Charged that progressive education had never sufficiently emancipated itself from Rousseauan libertarianism.

1939 — American Council on Education. Equal Educational Opportunity for Youth. Criticized the inadequacy of vocational preparation of a narrow and specific character. Urged an interrelationship between vocational and general education.

1940 — American Youth Commission, (ACE). What the High Schools Ought to Teach. Urged that the school should be adjusted to the needs of all pupils. Stressed the values of reading, current social studies, and work experience as general education.

1944 — Educational Policies Commission (NEA), Education for All American Youth. Proposed ten imperative educational needs of youth (see Knight, 1952, pp. 118-119). This and the 1940 ACE report paved the way for the life adjustment education movement.

1944 — Beginning of "life adjustment movement" within USOE's Vocational Education Division.

The Progressive Education Association was disbanded in 1946 and its journal Progressive Education ceased publication in 1957.[4] The movement, however, had been in steady decline for about twenty years. Excellent discussion of the strengths and weaknesses of the "Era of Progress" may be found in Cremin (1961), Edwards and Richey (1963), and Best and Sidwell (1967). Woodring (1957, p. 16) appears to have provided a fair and objective appraisal of the progressive education movement:

> Progressivism was right in much that it emphasized, wrong in much that it rejected. In its earlier period it was right in emphasizing the importance of the individual

[4]See Squire (1972) for a contemporary review of progressive education.

> child and the importance of interest, freedom, and activity in learning, for these things had been neglected in the preceding period. It was wrong in its attacks on scholarship, the academic disciplines, and the importance of factual knowledge. It was wrong in its refusal to establish a priority of goals - in its insistence that one goal could not be placed above another. It was wrong in its rejection of standards and in its demand that there should be no discipline; it was wrong in trying to make the schools responsible for all aspects of the child's development. And it was fatally wrong on refusing to listen to criticism from parents and other citizens. A reform movement can survive for a time on the basis of its opposition to prevailing trends, but a continuing philosophy of education must have a firmer base.
>
> Few informed people will deny that the Progressive movement contributed much of great and lasting value to American education. Still fewer will deny that it carried its principles to excess, distorted its own sound views, outlived its usefulness as a reform movement, and has now come to its logical end.

Life Adjustment Education vs. Basic Education: 1945-1957

The vision of education planners in the 1940's was of an education literally for all American youth. This ideal had already been somewhat achieved in the elementary schools during the 1930's. After World War II, it appeared to those progressive-thinking educators that the curriculum was a major barrier to a common school education for high school age students. Hence the curriculum must be reformed, it was felt, and should be focused on the life of the young and on their needs and interests. The resultant reform movement was called "life adjustment" education.

The life adjustment movement was fostered by the activities of the Vocational Education Division of the U. S. Office of Education. Its origin was the so called Prosser Resolution, which was presented at a summer 1945 USOE Conference. See Krug (1966, pp. 131-135) and Best and Sidwell (1967, pp. 413-417) for a discussion of the Prosser Resolution and the origins of life adjustment education.

Progressive education had its professional education critics almost from the very beginning. In the 1950's, however, the layperson also began to be heard. The voices of these new critics brought a quick collapse of the life adjustment movement. The launch of Sputnik I and the subsequent intensification of school criticism, was the climax of the outraged layperson's vigorous attack, not only of progressivist methods in the school, but of basic progressive theory regarding the function and responsibility of the school.

1945 "Life Adjustment" officially unveiled on June 1, at the end of a two-day conference sponsored by the U.S. Office of Education on "Vocational Education in the Years Ahead." Prosser Resolution presented: "...We do not believe that the remaining 60% of our youth of secondary school age will receive the life adjustment training they need and to which they are entitled as American citizens- unless and until the administrators of public education with the assistance of vocational education leaders formulate a comparable program for this group."

1950 Educational Policies Commission, NEA issued a report on Education of the Gifted. Movement began for the education of gifted and academically talented pupils.

1951 USOE's Vitalizing Secondary Education: Report of the First Commission of Life Adjustment Education for Youth. Commission defined its goal as an education "designed to equip all American youth to live democratically with satisfaction to themselves and profit to society as home members, workers, and citizens."

1951 Hulburd's This Happened in Pasadena. Describes the political demise of Willard Godlin, the progressive superintendent of Pasadena's progressive schools.

1953 Bestor's Educational Wastelands: The Retreat from Learning in Our Schools. Asserted that professional educationalists have taken over the training of teachers and corrupted the curriculum. This work was among those that gave

the death blow to life adjustment education and, by association, to the progressive education movement.[5]

1954 — Supreme Court decision in Brown v. Board of Education. Outlawed segregated education and accelerated the civil rights movement. Focused public attention on the plight or urban and rural disadvantaged children.

1954 — USOE's A Look Ahead in Secondary Education: Report of the Second Commission on Life Ajjustment Education for Youth. Report ended with the conclusion "that an enormous and necessary task undertaken during the 20th century is but half finished."

1957 — Launch of Sputnik I by USSR. Provided ammunition for critics who charged that education was anti-intellectual.

Space limitations preclude a more thorough account of the various criticism of the school during the fifties. However, an excellent discussion of this period is contained in Thayer's (1965, pp. 325-362) chapter on "Public Education Comes Under Fire," and Cremin's (1961, pp. 328-353) chapter on "The Crisis in Popular Education."

Contemporary School Criticism: 1957 to 1975

The year 1957 is a pivotal one in the history of education. The launch of Sputnik I was followed by a wave of unprecedented criticism of education that has continued, in one form or another, until the present day. Five independent (but overlapping in time) themes are discernable during this period:

1. The post-Sputnik attack on frill courses and the call for an increase in science and mathematics programs. Most

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[5] "It is interesting to note that in a little over half a century, Bestor had come full circle from the early progressives. Whereas Joseph Mayer Rice in the nineties had called upon the public to reform the schools by creating a new class of professionals who would manage education according to scientific principles, Bestor was now calling upon the same public to undo the damage of the professionals by returning the schools to the arts and science professors." (Cremin, 1961, p. 346).

of the complaints were made by politicians, military men, and college professors, especially the political right (1957-1960).

2. The disciplines-centered curriculum movement. National curriculum projects in several academic areas were developed (1960-1970).

3. The "Great Society" and "War on Poverty" educational programs and legislation were implemented (1963-1968).

4. Maverick proposals by the "romantic" critics, gradually gave way to the more "radical" proposals for educational reform (1964-1972).

5. The accountability movement and the mid-1970's high school reform proposals began (1970 to the present).

The designation of these themes is admittedly somewhat arbitrary. The significance of these themes is to demonstrate the pluralistic nature of reform movements since 1957. The major specific events and conditions of this period are:

1958 National Defense Education Act. Direct response to Sputnik I. Called for by the act was the rapid correction of "existing imbalances in our educational programs which have led to an insufficient proportion of our population educated in science, mathematics, and modern foreign languages and trained in technology."

1959 Time of great concern over the alleged intellectual aimlessness of the schools. See for example The Case for Basic Education (Koerner, 1959) and Education and Freedom (Rickover, 1959).

1960 Bruner's The Process of Education. Report of the 1959 Woods Hole Conference. Emphasized the "structure of the disciplines" as a basis for curriculum design. See Grobman (1970) for a discussion of the many national curriculum projects which were developed during the 1960's.

1961 Educational Policies Commission (NEA), The Purpose of Education in American Democracy. "The purpose which runs through and strengthens all other educational purposes - the common thread of education - is the development of the ability to think."

1963 During the five year period beginning in 1963, the first of 24 major pieces of legislation were passed. Notable

among which were the Vocational Education Act of 1963, the Elementary and Secondary Education Act of 1965, and the Higher Education Act of 1965.

1964 Holt's How Children Fail and Kaufman's Up the Down Staircase. Beginning of a new wave of criticism by the "romantics" (e.g., Kozol, Kohl, Herndon, Hentoff, Dennison, Goodman, Friedenberg). Later, the criticism by the romantics gave way to criticism by the more radical "de-schoolers" (e.g., Illich, Rozak, Reimer).[6]

1970 Beginning of the accountability movement: "School administrators and school teachers alike are responsible for their performance, and it is in this interest as well as in the interests of their pupils that they be held accountable" (Nixon's 1970 education message to Congress).

1971 Commissioner of Education Marland's "Career Education Now." Launched the career education movement at the Federal level.

1971 Bruner's "The Process of Education Revisited." In this article, Bruner reviews educational change since 1957 and concludes that we must put the "sense of vocation and intention back into the process of education, much more firmly than we had it there before." (Note: Contrast this with "1960" above.).

1972 Beginning of another reform movement at the secondary level, e.g., The Greening of the High School (1973), American Youth in the Mid-Seventies (1972), Youth: Transition to Adulthood (1974), The Reform of Secondary Education (1973), The Emerging Reform Movement in Secondary Education (1974).

1974 Career education becomes institutionalized at the Federal level. The U.S. Office of Education officially endorses a policy paper on career education (Hoyt, 1974), and Congress passes new legislation (Section 406, Education Amendments of 1974) specifically for career education.

Summary and Conclusions

This chapter has been concerned with historical attempts to define the purpose of American education. Among the many conclusions and

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[6]See Bailey and Stadt (1973) and Postman and Weingartner (1973) for representative discussions of the "romantic" and "radical" school reformers.

implications of this survey, are the following:

1. Effort in education prior to about 1880 were largely concerned with providing a "common school" education for all citizens. Once the ideal of a free, public-supported education was achieved, efforts after 1880 shifted to greater concern for the form and function of schooling.

2. The scientific study of education is at least 100 years old. The scientific study of curriculum began about 1918. However, McNeil (1969, p. 293) notes that "There is little evidence that principles of curriculum and instruction (knowledge in the process of curriculum making) are significant in shaping the curriculum of the schools."

3. At the turn of the century, education was concentrated on transmitting to the young the "essentials" (philosophy of essentialism) of our moral tradition of Western civilization. The generally educated man (and man meaning male) was the liberally educated man. The classical languages and familiarity with the Great Books were the means and the ends of this form of education.

4. During the first half of the twentieth century, the theory of progressivism (philosophy of pragmatism) began to compete with essentialism for the allegiance of American educators. Debates between advocates of these two theories dominated the educational scene until World War II. Both theories receded in significance after the war as matters of power, national survival and destiny, business and industrial growth assumed greater importance.

5. Inspired by the quest for knowledge as power (see Mason, 1972, p. 21), psychology (as opposed to philosophy) began to exert a greater

influence in education after World War II. The question of "What are schools for?" (the essence of education philosophy) was bypassed in favor of "What is a subject for?" (see Postman and Weingartner, 1973, pp. 5 & 6). The "Structure of the Disciplines Movement" (also referred to as Concept Teaching, Concept Learning, and Inquiry Teaching) and "Neo-Behaviorism" (operant conditioning and the psychology of behaviorism) moved to the forefront in education. These two theories, while not connected theoretically, were responses to a concern for "... teaching more, teaching faster, and teaching more thoroughly" (Mason, 1912, p. 22).

6. A third post-war educational theory, based on humanistic psychology, arose in opposition to the "disciplines" and "behaviorism" movements. Appendix A of this work clearly shows the influences of humanistic psychology in contemporary conceptions of education. The implication from the works cited in Appendix A is that humanistic psychology has come to be a dominant theory in education during the 1970's.

7. Forces arising out of general social, technological, economic, and political trends have increasingly come to effect American education. Change in education (or more accurately, calls for change) seems to result when gaps between school and society become extreme. For example, the post-Sputnik criticism of education was the result of a preconceived gap between the "soft pedagogy" of progressive-oriented schools and the National defense interests of the country. Similarly, contemporary calls for career education and reform of the American high school is the result of a perceived gap between "youth and adulthood"

(Coleman, 1974) and between "education and work" (Marland, 1974).

8. Since the latter part of the nineteenth century, national committees and commissions have been a significant force in shaping education goals and curricula. The effect of the several 1961 through 1974 commissions identified above, bears close scrutiny in the years ahead.

9. Not withstanding the participation of classroom teachers in curriculum development during the 1920's and 1950's, the role of the teacher has never been a potent factor (in relation to other forces) in leading education change. The active role of classroom teachers in the present career education movement is a contemporary phenomenon that bears watching by curriculum theorists.

10. Despite historical concern for the formulation of educational goals and more specific learning outcomes, the present day curriculum is characterized by a smorgasboard of courses and a preoccupation with the means of education as opposed to the ends of education. Gilchrist and Roberts (1974) attribute this condition to the fact that goals are shelved as soon as they are stated. Commissions, committees, scholars, and laypeople who formulate goals return to other matters and continue as if stating goals assured their extension into short-range increments.

The following conclusions relate more specifically to career and vocational education:

11. The goals of "vocation", "vocational efficiency" and "occupational development" have been consistently included in major statements of important learning outcomes for a 100 years. Yet, career development and vocational education have not achieved the degree of importance in local school curriculum as have other life-centered goals (e.g.,

citizenship, driver education, physical development, basic skills).

12. Vocational education has not historically allied itself with any prominent educational philosophy or theory (life adjustment being the notable exception). Rather, vocational education (at least prior to 1963) has been justified on the basis of preparing skilled workers for a strong economy. This "manpower approach" to education (see Broudy, 1973, pp. 31-35) seems to be clearly alien to the present and future direction of education below the college level.

13. While the "manpower" rationale for vocational education is not shared by the majority of contemporary curriculum theorists, widespread popular and theoretical support does currently exist for a new form of vocational education.

14. The theoretical basis for career education, which is rooted in humanistic psychology and career development theory, has major implications for strengthening the form and function of vocational education.

A new reform movement in education, concerned with the perennial question "What are schools for?" is at hand. The responses are many and varied, and reflect the diversity and pluralistic nature of our society. Appendix A contains a survey of such responses. Among the types of education suggested are: "affective", "humanistic", "psychological", "alternative", "moral", "affirmative", "confluent", "futuristic", "personalized", "process","career", "self-actualizing", "life-centered", "survival", "future-focused", "self-science", "aesthetic", "self-guiding",and "liberating".

The question obviously arises regarding how to reconcile these varied concerns for educational purpose. A related question relates

to how to develop a curriculum in which such learning goals are translated into action. The remainder of this monograph will deal with one suggested approach, concentrating specifically on these learning outcomes related to career and vocational education.

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> The single most important deficiency in American education is its preoccupation with (the) instructional process. This overriding concern with procedures rather than the results produced by those procedures manifests itself in myriad ways. (Popham, 1969, p. 208)

CHAPTER THREE

TOWARD AN OUTCOMES ORIENTATION IN CAREER EDUCATION

In the first two chapters of this monograph, the author has been using the term "career and vocational education" as a concession to those who wish to keep them separate. The terms are different with respect to their historical development, theoretical (or atheoretical) bases, and programmatic modes. This chapter will concentrate on the ways in which career and vocational education are similar (or should be) and will propose why it is legitimate and desirable to use simply career education in referring to both concepts.

Differentiating Between Ends and Means

The observation by Popham which begins this chapter is probably the most cogent and profound statement in the entire monograph. What he is referring to is education's failure to comprehend the important difference between "ends" and "means". A brief lesson in the fundamentals of curriculum development is in order.

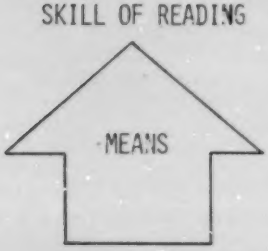
"Ends" is used to refer to the learning outcomes of education; how the student changes or is changed as a result of instruction. Ends is also synonomous with purpose, aims, goals, and objectives. "Means", on the other hand, refers to the topics, activities, materials, methods,

programs, and the like, by which such ends are developed. The referent for ends is the learner, whereas the referent for means is the teacher or the program. An analogy may help to make this distinction more clear (see Figure 1).

MEANS	ENDS
Language Arts is a program of instruction designed to facilitate the process of communications.	Communications: 1. Reading 2. Writing 3. Listening 4. Speaking 5. Acting-Out

Figure 1.

Language arts is a name of a program of instruction (means) which is designed to facilitate the process of communication. What are the learning outcomes? The language arts teacher is concerned with developing concepts and skills (ends) related to reading, writing, listening, speaking, and acting-out. There is no other reason for the languages arts program and the language arts teacher to exist. Let's develop this principle one step further. There is an infinite number of means by which the concepts and skills of communications can be developed (see Figure 2). For example, one can learn to read by an infinite number and type of reading materials including newpapers, magazines, books, microfilm, and electronic media. One can learn to read by reading about animals, people, history, science fiction, or occupations. One can learn to read in a self-contained classroom, in an open classroom, in a library, in a learning carrel, or in a vocational education laboratory. One can learn to read with the assistance of a teacher, a parent,



CONTENT

ACTIVITIES

MATERIALS

METHODS

CLASSROOM CLIMATE

STAFFING

PROGRAMMING

Figure 2.

a peer, or a computer.

Implicit in this distinction between ends and means is the matter of priority. That is, goals and objectives (ends) should always precede content and instruction (means). This requires that in planning curriculum, goals and objectives should be identified prior to deciding what materials are to be used to reach such goals. As simple as these basic principles seem on the surface, they are almost always universally violated

in practice. For example, a teacher often selects a new textbook, takes students on a field trip, administers a standardized test of achievement, or insists that everyone should read Silas Marner, without sufficient thought given to why these means are being utilized. This is a harsh criticism of education and teachers that is not made casually or without ample documentation. The facts speak for themselves. The implications of "ends-means reasoning" are powerful and extend to the very heart of "What are schools for?".

Career Education, Vocational Education, and Career Development

The anology with respect to language arts will now be used to gain a better understanding of the similarity and the differences between career and vocational education. In the same way that language arts is a program of instruction to facilitate the process of communication, career and vocational education are the names of programs[1] of instruction to facilitate the process of career development. The programs may take different forms and scopes, but their purposes are (or should be) essentially the same.

Whereas learning outcomes can be derived from the behavioral construct (i.e., process of) of communications, learning outcomes can also be derived from the behavioral construct of career development. Acknowledging that further research needs to be done with respect to formulating learning outcomes based on the construct of career development, the

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[1]Career Guidance could also be added here as a third type of program concerned with facilitating the process of career development.

following six types of concepts and skills are suggested as encompassing the ends of career and vocational education:

1. Understanding and implementing self.
2. Understanding and preparing for work.
3. Accepting responsibility for career planning.
4. Developing skills in decision-making and information processing.
5. Relating to individuals and groups.
6. Developing and clarifying attitudes and values toward work.

Vocational education has traditionally emphasized the second category of concepts and skills, specifically the psychomotor skills part of understanding and preparing for work. The remaining five types of content and skills have received some emphasis in vocational education, but nowhere near the emphasis accorded to occupational training. Vocational education has been further limited by law to preparing individuals only for occupations requiring less than a baccalaureate degree. Further, vocational education is usually confined to what is considered to be grades 11 through 14.

Career education, however, has evolved in large part in an attempt to augment the limited scope and purpose of vocational education. Its concern is meeting the needs of learners rather than meeting the needs of the labor market. Its concerns are for cognitive and affective concepts and skills in addition to psychomotor ones. It is concerned with paid and unpaid work; and, with learners of all ages. It includes vocational education as one of its means, but is not limited to it.

A book length treatise could be written detailing perceived differences between the ends and mean of career and vocational education.

The author sees little to be gained from such a discussion, however. The point to be emphasized in this chapter, is that preoccupation with labels for professionals and programs are relatively insignificant when compared to ends and detracts from more legitimate concern for purpose and outcomes.

In the remainder of this paper, the author will turn his attention to developing a prospectus on education for the future. In those instances in which the term career education is used, the reader should understand that vocational education is incorporated into career education as one of its important parts.

Behaviorism and/or Humanism

This chapter would be incomplete without due consideration being given to a discussion of the psychological orientation manifest in "ends-means reasoning". Even cursory review of the first part of this chapter reveals the author's behavioral orientation. Behaviorism is one of two dominant psychological theories in contemporary education. Behaviorists are commonly referred to as behavioral "shapers" or behavioral engineers. B.F. Skinner is this theory's leading spokesperson. Kolesnik (1975, p. 108) identifies the basic assumption of behaviorism as follows: "First, whatever the case may be with respect to human nature, human behavior can be improved; second, the purpose of education, be it formal or informal, is to improve human behavior; and third, programming is, if not the only, the most effective way of doing so." The tools of behaviorism include the use of behavioral objectives, mastery learning, logical organization of instruction, and other related concepts of accountability. The author advocates such methods in

facilitating career development.

The other prominent psychological theory is humanism. Humanism began to emerge in the 1940s, was developed in the 1950s, and spread most rapidly in the 1960s, at least in part as a reaction to behaviorism (Kolesnik, 1975). Abraham Maslow, Carl Rogers, and Arthur Combs are prominent among a number of humanistic psychologists. Basic to humanistic education are such concepts as intrinsic motivation, human dignity, individualization and socialization, discovery and personal meaning, human potentialities, man's inherent goodness, responsibility, flexibility, self-concept, feelings and perceptions, and, of course, freedom and self-actualization. The author also subscribes to these basic principles and assumptions.

How can one be both a behaviorist and humanist? The differences between these two psychological theories are obvious from the above discussion and from the summary illustrated in Table 1. An awareness

	Behaviorism	Humanism
Locus of control	Largely environmental	Largely inner
Motivation	Reinforcement	Self-actualization
Learning	Governs behavior	Provides locus for choices
Attitudes, values	Learned	Considered and compared before adoption
Central nature	Neither good nor bad	Good
Active, reactive	Largely reactive	Largely active
Dependency upon environment	Environmentalist	Inner-directed
Freedom	Deterministic	Capable of self-change

Table 1.

Characteristic Differences Between Behaviorism and Humanism

Source: Ringness, T.A. The affective domain in education. Boston: Little, Brown and Company, 1975, p. 16.

of these differences has resulted in considerable anxiety and frustration for the author. He is not one who has been reluctant to articulate a specific value position he holds. This is particularly true in those cases where differing theories seem to be diametrically opposed.

Kolesnik (1975, p. 158-159) offers a reasoned view on the relationships between behaviorism and humanism:

> To me it seems that our schools can help develop the free and happy, self-actualizing people envisioned by the humanists while at the same time contribute to the development of the good citizens envisioned by the behaviorists.
>
> . . . .
>
> I feel that neither the behaviorists nor the humanists have all the answers to all the problems of education. But I do believe that between them they have at least some good tentative answers to a great many of those problems and offer some sound direction as to where other answers might be found.
>
> . . . .
>
> Perhaps you are more strongly attracted to one of the two positions than the other, but are unwilling to categorize yourself as an out-and-out humanist or behaviorist. Perhaps you do not like to think of yourself as a dead-center, middle-of-the roader because you regard middle-of-the roaders as indecisive or uncommitted or just plain wishy-washy.
>
> . . . .
>
> Perhaps you will want to continue to reflect on the implications of these two systems and, as the occasions arise, draw on what you regard as the best of each. Perhaps you will find yourself successfully using humanistic means to achieve behavioral objectives, and behavioral methods to attain humanistic goals.
>
> I'm confident that if you haven't already done so, you will eventually get your thoughts on these matters together and formulate for yourself a theory of education, on which to base your practices, that is neither humanistic nor behavioristic, but yours.

This discussion on behaviorism and humanism, and the development of a rationale for integrating both, has been brief. That does not mean, however, that the literature on these subjects is brief. In a biblio-

graphy to his book, Kolesnik identifies twenty books each under the heading of humanism and behaviorism. These books as well as others identified at the end of this chapter are recommended reading for the individual who has been challenged by the concepts discussed here.

Summary

This chapter has advocated the critical need to shift curriculum development and planning from its present preoccupation with means to a greater awareness and concern for ends. It has been suggested that both career and vocational education are only convenient labels for programs which have the common purpose of facilitating the process of career development. Because of the realization that the program of vocational education is a part of the program of career education and because of the author's advocacy of the need for both programs to focus on learning outcomes, it is suggested that career education be used henceforth when referring to educational programs directed to the development of the concepts and skills of career development.

The latter part of this chapter has considered behaviorism and humanism with respect to the advocacy of an outcomes orientation. It has been shown how behaviorism and humanism can be complimentary. In the chapter which follows, the author will present an education paradigm which is characterized as behavioral-humanism. That is, the model will utilize behavioral means to attain humanistic ends. It will also be shown how career education can be incorporated in such an overall education design.

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> The foundation for process education has been laid. Knowledge about the development of skills essential to an effective and satisfying life is at hand (Cole, 1972, p.40).

CHAPTER FOUR

THE CASE FOR PROCESS EDUCATION[1]

A major barrier to educational change, and the target for needed reform, is the present information oriented curriculum. In this approach, subject matter serves as both the ends and the means of instruction. In the previous chapter, the need to state curriculum outcomes in terms of the learner's behavior was emphasized. Subject matter is then viewed as an infinite body of topics, activities, and materials which is selected for its utility in facilitating the stated curriculum objectives.

Having advanced the argument in Chapter Three for differentiating clearly between ends and means, attention will now be turned to a consideration of desirable learning outcomes based on the realities of present and future decades. The purpose of this chapter is to discuss the rationale for employing "process education" as an approach to developing learner-oriented curriculum outcomes.

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1. This and the next two chapters are adapted from Bailey and Cole (1975).

Process education is both an instructional theory and an educational theory. As an instructional theory, process education focuses on skills and competencies as desirable curriculum objectives. As an educational theory, process education shares much in common with humanistic psychology. The former sense of process education will be discussed in the present chapter; the latter sense of process education will be discussed in Chapter Five.

The Rational Identification of Educational Priorities

Pucinski (1971) has sagely observed that school systems share a problem in common with whales. The latter face possible extinction from gigantism. Having grown so massive these creatures hang precariously at the end of their evolutionary limb. School systems, likewise have expanded into gross elephantine structures attempting to serve many masters at once. The list of obligations is lengthy.

> To cite a few, schools are held responsible for teaching morality; health and safety; physical development; respect for country and Constitution; appreciation of literature and the arts; proper dress and sexual attitudes; role expectations for men, women, and children; obedience to authority; reverence for free enterprise; esteem for thrift and diligence; skills in mathematics, foreign languages, English composition and literacy; familiarity with history and geography of the world; belief in nonviolent, peaceful evolution; cooking, sewing, and child-rearing; shop, agriculture and technical training; driver education and office skills; decorum and deportment; leadership development; sportsmanship; and order. School systems are expected to nurture musical and artistic talents, to develop a concern for environment and drug abuse, and to guide and counsel students (pp. 5 & 6).

The growing emphasis attached to newer curriculum concepts such as career education (and the dozen or so other concepts excerpted in Appendix A)

has resulted in the schools facing additional responsibilities. Because limited resources preclude education's equal involvement in all areas, priorities must be established.

Scholars such as Cole (1972), Fantini and Weinstein (1968), Gordon (1973), and Derr (1973) have proposed that program priorities be given to the development of those skills which are known from experience to be central and important to human functioning in the reality of present and future decades. Behavioral scientists who have studied the functioning of adaptive human behavior frequently refer to these skills as processes. "Education directed toward the purposeful and deliberate promotion and facilitation of such skills or processes is process education" (Cole, 1972, p. 29).

Process Education: A Practical View

Process education is concerned with the development of cognitive, affective, perceptual, motor, and social interactive skills. Skills are clusters of behaviors which are highly generalizable and therefore useful in many recurrent situations. Such skills are essentially strategies or "processes" by which individuals perceive, select and organize information, and experience toward effective coping with the environment and toward attainment of personal and interpersonal goals.

Process and Conventional Education

A primary difference between process and conventional education is the emphasis upon skills. In process edcuation approaches, the key question in planning instruction is, "What skills are essential to the individual in order to make her/him a more effective person?" The specific content of the curriculum is selected for its utility in facilitating and generalizing that array of skills deemed as the goals of

instruction. The major objective is to help learners acquire a wide range of skills which will allow them to organize and construct knowledge toward their own ends.

Conversely, conventional education usually begins with the question of "What must the individual know?" The major emphasis is upon organized knowledge which is to be transmitted to the student. The content, scope and sequence of instruction assumes primary importance. The development of skills is largely ignored or viewed as secondary to the mastery of bodies of knowledge. Thus, students are encourage to learn skills of reading, mathematics and persistence in order to acquire more knowledge in history, chemistry or economics. The main objective of instruction is to enable the individual to understand and interpret existing organized knowledge and to prepare for further schooling.

At this point, it should be clear that both conventional education and process education approaches have much to recommend them and that a blend of both approaches is functionally required in instruction. However, in ongoing educational practice the life skills of healthy and adaptive behavior, which are the primary goals of process education, are often functionally ignored. Life skills nearly always exist at abstract levels as generally endorsed educational goals. However, when it gets down to the business of instruction, content usually takes precedence over process skills. Thus, knowing parts of human anatomy, the major battles of the civil war, or the various types of community helpers are representative content goals. Such information usually takes precedence over more generalizable skills such as the attitudes and resolve required to keep physically fit; the construction of reasonable inferences about past events and people from historical data; or exhibiting informed,

rational choice and decision making in planning one's own career.

There are many reasons for the avoidance of broad process skill objectives in favor of specific content objectives. Perhaps the most common reason is that it is simply quicker and easier to each and test for acquisition of specific facts and information than for highly generalizable skills. And, yet it is just this simplicity of teaching factual information and complexity of teaching skills or processes that is a major justification for process education.

Justifications for Process Education

There are many justifications for the functional concern of process education with a wide array of lifelong coping skills. First, chronic change makes it impossible to predict what specific facts and information will be needed in the future. Yet, it is very easy to predict that individuals will continue to be well served by the process skills of being able to read, comprehend complex ideas, construct inferences, develop interpersonal attractions, and cooperate with other people toward mutual achievement of goals. Furthermore, facts or information can be, and are, stored in books, libraries and other places. When such information is needed, it can be readily looked up or retrieved. A student can look up the "parts to the heart" of any animal, the main causes and battles of the civil war, or the number and type of occupations, any time such information may be needed. This is not true for the process skills which must be learned experientially and stored personally. One cannot "look up" the skill of constructing reasonable inferences about history, the skill of reading or the skill of maximizing the self-concept through career decisions.

In addition, specific knowledge and factual information is infinitely

vast. The amount of information to be learned by any individual is very limited. What is required are the process skills of knowing "how to know" and learning "how to learn". Bruner (1968) calls this skill "going beyond the information given". He points out that adaptive use of information in an extremely complex world requires not its memory but its re-construction from a few general principles, from incomplete past experiences, and from knowledge generating skills.

Gagne (1970) points out that factual information, although quickly learned, is quickly forgotten. Process skills, however, once learned are retained, usually lifelong. In addition, they are much more widely applicable than specific factual knowledge or specific conceptual relationships. Knowing how to state and formulate questions in algebraic form and how to solve linear equations is generally a more useful skill than memorizing the three variations of Ohm's law. The skill required to seek and gather information about occupations, self-interests and personal resources, toward making informed career decisions, is much more useful than simply knowing the number of occupations which exist in the health cluster, or how much income is earned by typical persons employed in this field.

Process skills are the basis upon which all formal educational practice rests. Long before children enter kindergarten they have intuitively internalized complex rules and strategies concerning the meaning and syntax of language. It is these very basic process skills which permit reading and writing to be instructed. Other basic process skills instrumental to school success include attitudes and motives of persistence, attention, cooperation and personal worth. Generally, these basic process skills are not instructed by teachers. Children with deficits in these skills

are severely handicapped in acquiring the knowledge and additional skills set forth as the usual goals of the curriculum. Furthermore, such deficits tend to cumulate, since further learning of additional process skills and course content or information requires these initial instrumental process skills (Staats, 1971).

As formal classroom instruction and the responsible, mature, personal and social development of the individual continue, both depend increasingly upon the internalization by the individual of a wide range of complex process skills. Healthy and adaptive behavior is cumulative and in the direction of ever increasing generalization of skills, conviviality, greater responsibility and self-regulation. The development of these essential skills should be a priority objective in all educational activities from kindergarten to graduate school. The goal of teaching information or the content of academic disciplines for its own sake is not possible without the learner's prerequisite process skills, and in any case is much less desirable than selecting specific information and content not so much as the end goal but as the means for developing and generalizing process skills. Ultimately, both basic survival and the quality of life of the individual and society are dependent not primarily upon the sheer amount of information available, but much more so upon how, why and how wisely that information is used.

The Practice of Process Education

There are several options for determining which skills should be emphasized as goals in instruction. One option is to look to the work of individuals who have reflected upon and subsequently recommended particular skills or categories of skills for emphasis in educational practice. Examples from among many appropriate sources include: Life Skills in

School and Society (Rubin, 1969), To Understand is to Invent (Piaget, 1973), and Facts and Feelings in the Classroom (Rubin, 1973). Another option for determining which skills to emphasize involves looking to the results of behavioral research. Human behavior has been studied and much has been learned about particular categories of process skills and their utility to the individual in effective living. Examples of research in these areas include the work of Aspy (1969) and Carkhuff (1971) among many others, concerning communication, interpersonal and social skills and their relationship to improved learning and achievement. Other examples include the work of the intellectual process skill categories basic to scientific literacy and set forth as curriculum goals in the Science: A Process Approach Curriculum (Livermore, 1964; Gagne, 1965; Walbasser, 1968). A third option is to examine the main domains of life activity which make demands upon individuals and to ask ourselves what categories of process skills are required to cope with these demands.

It is impossible for a given set of curriculum materials or instructional procedures to deal comprehensively with the entire range of skills essential to effective living. Particular curriculum developers, educators and scholars emphasize different subsets of skills. It is both inappropriate and impractical to attempt to structure the entire educational setting of a school around the particular cluster of skills selected for emphasis by a given curriculum, theorist, teacher educator or scholar. Each source, of necessity, emphasizes some subset of skills it seeks to promote. The ideal situation is to make use of a wide variety of instructional materials, curricula and personnel capable of providing a good balance for the facilitation and development of a wide array of skills. Schools should continue to emphasize the basic skills of reading, writing, speaking and

computation. However, schools must also begin the purposeful and deliberate promotion of many other skills, which are generally ignored.

Fortunately, many researchers and scholars have translated their theories and research concerning process skills into the actual design of educational materials and programs.[2] These programs and materials have great potential in both their direct use with students to develop important categories of process skills and with teachers and curriculum designers as concrete examples of how to actually design and carry out effective instruction toward process education goals. The implications of this work is that process education can now be practiced in a wide range of curriculum areas and educational levels. Career development education (i.e., career and vocational education) is particularly well suited to a process education approach for a variety of obvious reasons.

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[2]See the following articles, referenced at the end of this paper, for descriptions and detailed discussions of how excellent existing process curricula and their design characteristics can be generalized to other areas of instruction: Seferian & Cole (1970); Cole (1972); Cole & Parsons (1974).

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> What do we do when faced by the fact that education is a matter about which reasonable people disagree? (Gowin, 1960, p. 947)
>
> . . . .
>
> To consider multidimensional criteria in educationally relevant terms is a complex problem, partly because these criteria reflect the ideologies current in society, though the ideal may be far from reality. Looking at a specific society, one might discover conflicting ideologies that issue conflicting educational mandates. (Hunt & Sullivan, 1974)

CHAPTER FIVE

A GLOBAL DESIGN FOR AMERICAN EDUCATION

Earlier in Chapter Three, the author used the term "behaviorial-humanism" to characterize an educational theory that would utilize behavoral methods (such as performance objectives) to achieve humanistic educational goals. As an educational theory, process education is an excellent example of a "behaviorial-humanistic" concept of education. The behavioral nature of process education was made obvious in Chapter Four. In this chapter, it will be obvious how process education is also humanistic-oriented.

Who is the Educated Person?

Cole (1972, 1973) has developed an explicit set of goals, definitions, and assumptions for the practice of process education. From this perspective, a profile of the desired end product of the schools is postulated. This hypothetical "educated person" would have the following characteristics (Cole, 1973, p. 14):

> An educated person is a person who can love others. Before he can love others he must respect himself. He must feel confident in and competent about himself and his role in dealing with others. He is also rational,

> skilled in reasoning, intuitive and analytic thinking. He is compassionate and warm in his interpersonal relationships. He is sensitive, empathetic, and non-ethnocentric. He is an independently motivated life long learner. He is a problem-seeker and solver. He is fluent and flexible in his perceptions, ideas, and feelings. He is curious and an inquirer, an avid gatherer and organizer of information and ideas. He is a coper rather than a defender, an active seeker rather than a passive acceptor. He is clarifier of his own belief systems and values toward removing dissonance between the ideals he professes and actions of his daily life. He is a person who continues to grow in wisdom, competence, compassion and reason throughout his lifetime.
>
> . . . .
>
> The educated person is also one who is successful in implementing his self-concept through work that is personally meaningful and socially useful. 1.

This profile of the educated person has been described by Maslow (1943, 1962) as well as by other scholars of human behavior before and since (e.g., Rubin, 1969, 1973: Combs, 1962). This view of the educated person is the epitome of humanistic psychology.

Assuming this to be an acceptable ideal toward which education should be directed, the next step in evolving an overall process-oriented curriculum would be the development of some type of curriculum organization mode addressed to facilitating the various qualities and characteristics of the educated person. This problem is illustrated conceptually in Figure 1.

While Cole provides multiple examples of process curricula which have been designed to facilitate various "dimensions of life activity",

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1. This last sentence in not Cole's. The author has written it to accomodate career development education within the context of a humanistic concept of education.

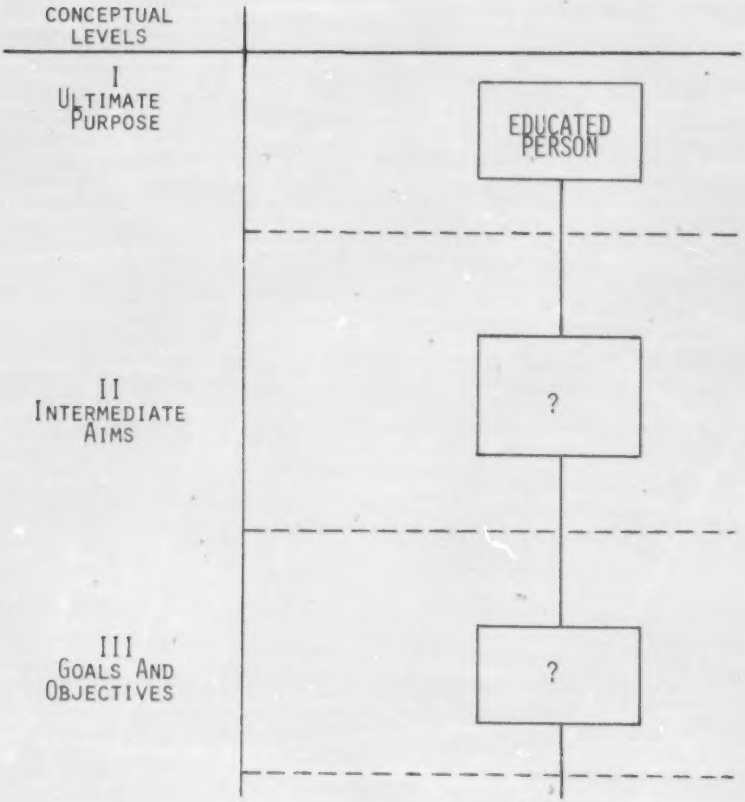

Figure 1

Conceptual Illustration of the Problem Inherent in Translating Purpose (theory) into Curriculum

he does not directly address the matter of identifying those various dimensions which are so necessary for focusing needed research, curriculum development, and teacher education. However, from Cole's discussion of "The Empirical Basis for Process Education" (1972, pp. 29-31) it can be inferred that such dimensions can be logically deduced and empirically defended. The following section will approach the problem of translating educational purpose into intermediate goals and objectives.

Development of a Functionally Relevant Curriculum Model

The ideal of facilitating the development of an educated person is one that is supported through an examination of almost every theory of education. Mason's text (1972) is a representative example of the literature on theories of education. He identifies and discusses the following predominant, contemporary theories of education: (1) The Liberal Arts Tradition, (2) Progressive Education, (3) The Structure of the Disciplines Movement, (4) Neo-Behaviorism, and (5) Humanistic Psychology. While the view of the educated person discussed previously is based essentially on the theory of Humanistic Psychology, the purpose of education advanced by the theories of The Liberal Arts Tradition and Progressive Education, on the surface, are similar in several ways to the theory of Humanistic Psychology. For example, Mason (1972, p. 41 & 42) discusses the purpose of a liberal arts education, in part, as: "The chief and fundamental function of education is to shape man as man, to draw out and develop the distinctively human in him....The obligation of the school is to bring out his essential humanness. People thus educated

can operate well in all fields." Similarly, he discusses the purpose of progressive education: "Education is seen as an effort to control the future. In educative experiences we learn how to direct our present experiences so as to achieve control of future experience. To be an educated person is to be in command of skills and knowledge to meet and master the new problems that come our way as we live our lives." (Mason, 1972, p. 82).

One can as well identify commonalities of purpose between the theory of Humanistic Psychology and those theories of Neo-Behaviorism and The Structure of the Disciplines Movement. The false distinctions that seem to exist among these five theories is troubling to one who is concerned with helping each individual become capacitated so as to develop his potential both for his own self-fulfillment and for his contribution to the maintenance and healthy functioning of society. Goldhammer (1972, p. 124) states well the essence of this dilema: "If the central mission of the school is to assist all students to become so capacitated that they can perform their life responsibilities competently, then there need be no false distinctions between various curricula within the school." In the remainder of this paper, an alternative to the subject-based and information-oriented curriculum that dominates American education is introduced. The proposed curriculum model focuses on ends rather than means. The ideal of an educated person as the end product of education is elaborated through descending levels of generality in such a way as to permit the systematic formulation of learning outcomes.

Assumptions

The curriculum model which follows is based on several basic assumptions regarding the form and function of education:

1. The ultimate purpose of education can be operationally described in terms of qualities and characteristics of an educated person.
2. The qualities and characteristics attributed to the educated person represent learning outcomes which reflect the purpose and intent of the majority of contemporary educational theories.
3. The qualities and characteristics attributed to the educated person reflect values which are compatable with widely held American democratic ideals and beliefs.
4. If the ideal of facilitating the development of the educated person is to be achieved, it is imperative that education be guided by precisely stated and systematically justified goals and objectives.
5. The qualities and characteristics attributed to the educated person find expression through the various roles in which an individual engages throughout the course of his life; such life roles can be logically deduced and empirically defended.
6. Life roles are functional descriptions of educational purpose. For curriculum purposes, life roles can be elaborated in terms of educational goals and performance objectives (learner outcomes).
7. Process skills are the basis for stating learning outcomes as the objectives for instruction.
8. Instructional topics, activities, and materials are selected for their ability to facilitate various learning

outcomes.

The Concept of Life Roles

It is a sobering experience for the curriculum developer to contemplate the type(s) of curricula required to facilitate the development of the long range ideal of an educated person. The qualities and characteristics attributed to the educated person are expressions of educational theory. A difficult problem for the curriculum developer is how to translate educational theory into statements of goals and objectives without losing sight of overall purpose. The gap between education theory and educational goals is illustrated by conceptual level II in Figure 1. Without some type of bridge between educational theory and educational goals, it is awfully easy to fall into the trap of constructing curriculum based on traditional academic disciplines and subject areas.

One approach to bridging the gap between theory and goals is through application of the sociological concept of role. "No one can well define the life of man separate from the social roles which he has to play" (Goldhammer, 1972, p. 121). It is through the various life roles that man expresses the behavior which are the products of learning and experiences. Reasoned reflection suggests that one could identify and classify a finite number of life roles; that operational description of such roles could be written in a way that encompasses overall educational purpose; and that such life roles could be empirically analyzed for the purpose of subsequent identification of goals and objectives. This rationale is reflected above in assumptions numbers 5, 6 and 7.

The idea of developing curricula based on life roles is not entirely new. Ammons (1960, p. 909) notes that in 1918 Bobbitt described in detail ways and means of examining adult activities to arrive at objectives.

Bobbitt maintained that adult activities could be discovered through the examination of newspapers and through the analysis of social, civic, religious, health, and other activites as these were engaged in by social classes. This "task analysis" approach, however, has a number of obvious limitations for curriculum development in the 1970s and beyond.

A number of recent scholars including Goldhammer (1972, 1975), Derr (1973), Armistead & Pino (1969), Flanagan (1973), Heathers (1974), Coleman (1972), Okon (1972), Gordon (1973), Fantini & Weinstein (1968), and Perkinson (1971) have identified various classifications of life roles. The more commonly mentioned roles are those of "worker", "citizen", and "family member". "Person" and "leisure" roles are also frequently mentioned. Super (1975a, p.31) has proposed a comprehensive list of ten major types of roles. In the approximate order in which these ten roles are dominant (according to Super) are: (1) child, (2) student, (3) worker, (4) spouse, (5) parent, (6) homemaker, (7) citizen, (8) "leisurer", (9) annuitant, and (10) patient.

Based on a logical analysis of the various life roles suggested by these scholars, five broad general life roles have been identified. These roles are illustrated in Figure 2 and are discussed below.

Prior to discussion of the roles, however, it seems wise to emphasize the nature of categorical systems lest one misunderstand the value and the limitations of such systems. According to Bailey and Stadt (1973, pp. 220-221), categorical systems have the following characteristics;

1. Multiplicity. Objects, events, and concepts that occur with reasonable frequency can be classified in many ways. The classification of five types of life roles in Figure 2. thus represent only one of several possible ways to classify roles.

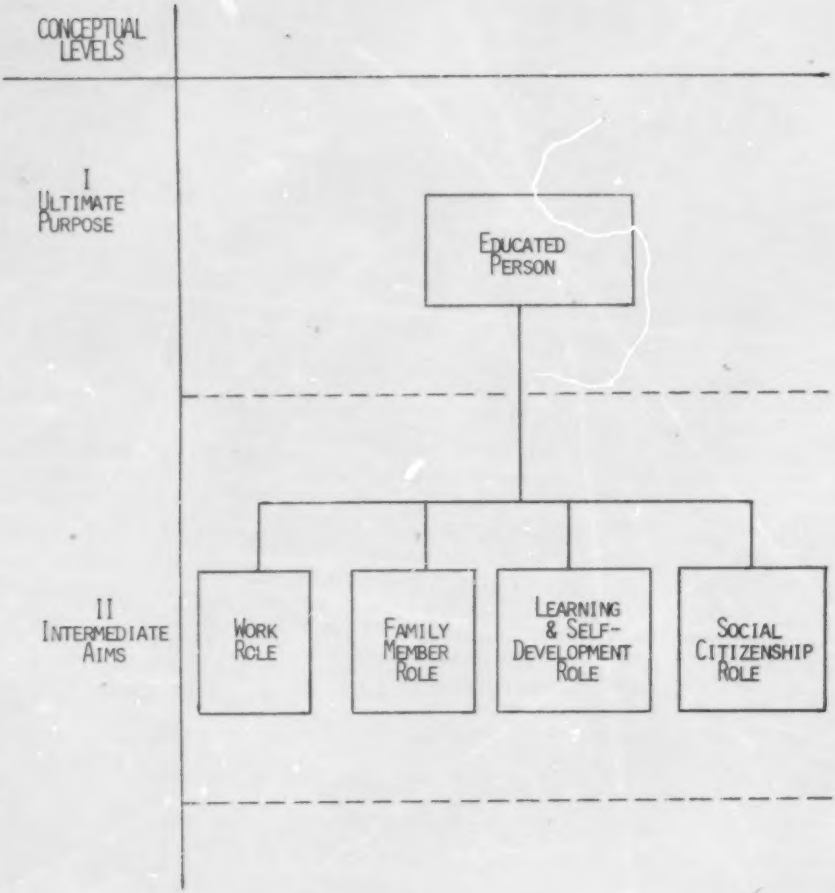

Figure 2

Life Roles as Intermediate Educational Aims

2. Artificiality. Categorical systems are said to be artificial because they are person-made. It is difficult to identify dichotomies and other discrete categories which occur in nature. (Dichotomies in particular have suffered severely at the hands of educational theorists, e.g., "academic" and "vocational".)

3. Mutability. A related and very significant characteristic of categorical systems is mutability. They do not always fit actual objects and events, i.e., they are changeable. When, as is often the case, we are unable to classify certain things, we are forced to establish new categorical systems or to modify existing ones.

4. Importance. Perhaps the paramount characteristic of categorical systems is their importance. Categorical systems are important insofar as they give organization or structure to, and thus facilitate understanding of, bodies of information.

This fourth characteristic of categorical systems is the sense in which the following classification of life roles is offered. Life roles seem to give operational meaning to the characteristics and qualities of the educated person in such a way that they are amenable to further empirical study and curriculum development.

Functional Categories of Life Roles

Central to the humanistic theory of education is the concept of one's basic motivation to become more and more what one is, to become everything that one is capable of becoming. This need is called self-actualization. Bonney (1969, p.144) describes self-actualization as "...the urge which is evident in all organic and human life-to expand, extend, become autonomous, develop, mature-the tendency to express and activate all the capacities, of the organism, to the extent that such activation enhances the organism or the self." As the term is employed in this monograph, the "self-actualized person" and the "educated person" are one and the same.

In the process of becoming, one engages in many different life activities. The author has used the sociological concept of life role to functionally categorize these life activities. Multiple examples of life roles have been suggested by a number of scholars above. Based on these writings, four categories of life roles have been developed which will now be discussed. Much of the rationale for these four classes has been drawn from Fantini and Weinstein (1968), Goldhammer (1972, 1975), and Gordon (1973).

Work Role

In a giant, soon-to-be-released monograph for the Office of Career Education, Super (1975b) discusses Career Education and the Meaning of Work. He illustrates the ways in which the term "work" has been used by labor economists, industrial sociologists, personality and social psychologists, industrial psychologists, counseling specialists, and career educators. He then goes on to propose a definition of work for use by career educators, i.e., work:

> The systematic pursuit of an objective valued by oneself (even if only for survival) and desired by others; directed and consecutive, it requires the expenditure of effort. It may be compensated (paid work) or uncompensated (volunteer work or an avocation). The objective may be intrinsic enjoyment of the work itself, the structure given to life by the work role, the economic support which work makes possible, or the type of leisure which it facilitates.

This sense of work is the one preferred here with reference to one's work life role. The work role includes both paid and unpaid effort that is pursued for the benefit of self, family and society. It included the traditional view of "economic man" as a producer of goods or a provider of services, but goes considerably further by way of including in the description of work role the many and varied types and forms of pro-

ductive human activity. The work role, which is the primary professional concern of this author, will be elaborated in more detail in the next chapter.

Family Member Role

An important need common to all cultures is to produce and raise children who will perpetuate the culture. The role of family member meets this cultural need through more specific roles of spouse and parent. The family member role, however, need not be restricted to a traditional view of marital and sex roles. A large number of individuals, especially the current generation, are choosing alternative lifestyles and alternative marital-sexual relationships. Even though the form may vary, the role function of a member of a primary family group remains essentially the same.

Learning and Self-Development Role

This generic role involves meeting several types of individual needs within three, more specific sub-roles. The self-management role is concerned with meeting one's physical, emotional, and daily-living needs. The self-renewal role is concerned with meeting the need to renew and recreate self. Several writers above deal with this need separately under a "leisure" role. A third sub-role can be labeled self-fulfillment. This is concerned with meeting one's intellectual and aesthetic needs. Another type of need-spiritual-might also be included here. However, it must be acknowledged that the spiritual role may also be concerned with serving a supreme being in addition to meeting one's personal needs.

Social-Citizenship Role

In addition to personal and family roles, each individual is involved directly or indirectly in the broader society. A "society" is defined as

any organized group so functioning as to maintain itself and perpetuate its species. The social-citizenship role should be thought of as extending beyond parochial interests to include perpetuation and maintenance of planet Earth.

Responsible action in the social-citizenship role is of critical importance to the survival of mankind. To perform adequately the responsibilities of one's social role demands knowledge and skills of democratic, participatory citizenship. It also requires having a well defined moral and ethetical character. The sub-role of consumer would also be included in this fourth category.

Summary

This brief discussion of the four major roles in which individuals engage is designed to illustrate how the qualities and characteristics of the educated person can be functionally described as a point of departure for curriculum development and organization. If these are indeed the roles by which one actualizes self, then education ought to develop these behaviors directly, rather than indirectly through an arbitrary subject-oriented curriculum. The next chapter provides an example of how the work role can be further described with respect to goals and performance objectives.

Process Education as a Mechanism for Educational Reform

It should be obvious to the reader that the process-oriented approach to education described in these pages is considerably more comprehensive than a simple curriculum revision. Educational reform of a high order will be required to shift the curriculum from its present means orientation to one which focuses on learners and the development of skills necessary to

function effectively in various life roles. Both Chapter Two and Appendix A convincingly suggest that education is moving in this direction. One excellent case in point is the work of the California Commission for Reform of Intermediate and Secondary Education (The RISE Report, 1975). Following is a verbatim excerpt of the "Statement of Philosophy" contained in the report of this 37-member California Commission:

> The Commission's recommendations aim at transforming our educational system from one that often herds young people through a scholastic assembly line to one that is flexible, demanding, and humane enough to help every person meet his/her own needs. There is no one kind of adult that such a system should "produce," for the essence of a personalized education is the freedom for individual diversity and self-development. But the Commission believes at least ten characteristics of an educated adult are worth seeking and should be the object of educational reform.
>
> First, the educated person should have a thirst for knowledge. He/she should be motivated to keep on learning throughout a lifetime. In a changing society, this means that people must learn how to learn because new knowledge is being constantly created by the current of change.
>
> Second, an educated person should have the skills to find work and to succeed in it.
>
> Third, a person's education should contribute to self-understanding and self-esteem. These values are more important than ever in an increasingly impersonal, mobile, and technological world. In a society that constantly forces people to adapt to change, the educated adult can respond without losing a sense of personal worth and purpose.
>
> Fourth, the educated person cares enough about the environment to work for its maintenance and improvement. This person also holds a global perspective about the ways individual and national actions affect this shrinking and complex world.
>
> Fifth, an educated person must try to understand and appreciate all peoples and cultures, without prejudice.

Sixth, an educated person must be able to read well, speak and write clearly, and handle comfortably both logical concepts and basic mathematical skills.

Seventh, the educated person understands the American system of government, including the citizen's rights and responsibilities. People who lack this understanding tend to function less effectively within the democratic system and, as a result, tend to weaken the system.

Eighth, the educated person would understand how the economic system works and know how to manage money as well as earn it.

Ninth, the educated person should know and understand human biology and psychology in order to maintain one's own well-being.

Finally, an educated person is sensitive to artistic, literary, and other aesthetic experiences. A full life calls for thoughts and feelings of quality and for an appreciation of the beauty around us.

These goals are not easy to achieve, nor is it easy to base a vast system of public education on an attempt to meet the needs and aspirations of each student. Any such effort must begin with far-reaching changes in the way schools operate.

These changes must be based on a redefinition of schooling. The Commission has, therefore, rejected the traditional view that a school is restricted to a piece of real estate where licensed adults teach and students passively learn during specified times of the day. Instead, the Commission envisions a school system as a network of teaching and learning that takes place at many times and places and in which both adults and young people work as teachers and learners. It envisions an educational system that attracts, motivates, and satisfies young people. In such a system, society itself is at the core of schooling.

The Commission believes that this kind of system can serve each student well and can be accountable and responsive to the public which supports it.

From this perspective, the Commission presents its recommendations for reforms that are needed to help the young people of California become educated adults now and in the years ahead (pp. 1 & 2).

These excerpts from the RISE report, as well as similar statements contained in Appendix A, demonstrate the current pervasiveness of humanistic concepts of education. It is especially significant that these views are not limited to educational theorists. The RISE Commission was composed of 37 members broadly representing education, business, industry, labor and the arts. It is also noteworthy that the Commission perceives a humanistic concept of education to also be "accountable." This agrees with the author's observation in Chapter Two that humanism and behaviorism need not be antithetical.

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> Anyone who thinks the present curriculum makes sense is invited to explain to an intelligent fourteen-year-old why algebra or French or any other subject is essential for him (Toffler, 1970, p. 410).

. . . .

> The two main requirements for thinking straight about the whole question of what our schools ought to teach are nerve and common sense, or, to put it a little differently, the nerve to use common sense. . . . The matter of nerve is relevant because it takes courage to shake ourselves loose from comfortable old notions and habits of thought (Wilhelms, 1972, p. 5).

CHAPTER SIX

THE INTEGRATION OF PROCESS AND CAREER EDUCATION

Learning outcomes for education can be arrived at by either of two general methods- deduction or induction (Wohlferd, 1972). Deductive reasoning is the process of logical thought moving from general principles to particular cases. This approach is illustrated by Chapter Five in which the end product of education was deduced from educational theory. Functional categories of life roles were then deduced from the description of educational purpose (i.e., educated person). Even though the author has not done so, education goals can be further deduced from a conceptual analysis of life role constructs.

The other approach to formulating learning outcomes-induction-is

the one more frequently employed in educational curriculum development. Induction is the process of reasoning from particular facts and statements of opinion to general conclusions. This approach has been used by the author previously to develop a career education curriculum model based upon principles of career development and application of knowledge of the variables involved in occupational and educational decision making. This model will be discussed in the next section of this chapter.

The deductive approach to developing curriculum detailed earlier, and the inductive approach described below represent two different phases of the author's professional development. His career education curriculum development interests were pursued primarily during the period 1970-74. His recent interests in process education have evolved over the last two years. Later in this chapter it will be shown how his efforts to develop career education curriculum (i.e., inductive approach) and his efforts to develop a broader education framework (i.e., deductive approach) can be combined in one comprehensive paradigm.

A Developmental Curriculum Model for Career Education

In their book Career education: New approaches to human development, Bailey and Stadt (1973) propose a career education curriculum model for grades K-12. They characterize the model as "...a beginning step in the creation of a comprehensive and integrated career education curriculum" (p. 377). In keeping with the outcomes orientation discussed in Chapter Two, the model encompasses the learning outcomes for career development without regard to whether they are thought to be the province of vocational or of career education.

The model illustrated in Figure 1 consists of a matrix of four developmental stages and six categories of career development outcomes. For each cell within the matrix (e.g. A1, B3, D6) a broad goal is stated (see Table 1) and supporting rationale has been provided. Each of the 24 developmental goals has been further elaborated with respect to general and specific performance objectives. Instructional topics, activities and materials are developed or selected to facilitate respective specific level objectives.

The evolution of the curriculum model is discussed in considerable detail in Bailey (1975). The model was developed essentially inductively over a period of years as principles of career development were used to structure and then to detail the matrix illustrated in Figure 1. Although an overall value orientation is clearly evident in the discussion of the purpose of the model (see for example Bailey and Stadt, 1973, p. 347), the purpose was not directly or intentionally deduced from a particular theory of education. The humanistic theory of education

Domains of Career Development Behaviors

1. Self knowledge and self-concept development
2. Occupational, educational and economic concepts and skills
3. Sense of agency
4. Information processing and decision-making skills
5. Interpersonal relationships
6. Attitudes and values toward work

A. Awareness K-3	B. Accommodation 4-6	C. Orientation 7-8	D. Exploration and Preparation 9-12
A1	B1	C1	D1
A2	B2	C2	D2
A3	B3	C3	D3
A4	B4	C4	D4
A5	B5	C5	D5
A6	B6	C6	D6

Figure 1.

A Developmental Curriculum Model for Career Education

Adapted from: Bailey, L. J. and Stadt, R. W., Career Education: New Approaches to Human Development, McKnight, 1973, p. 350.

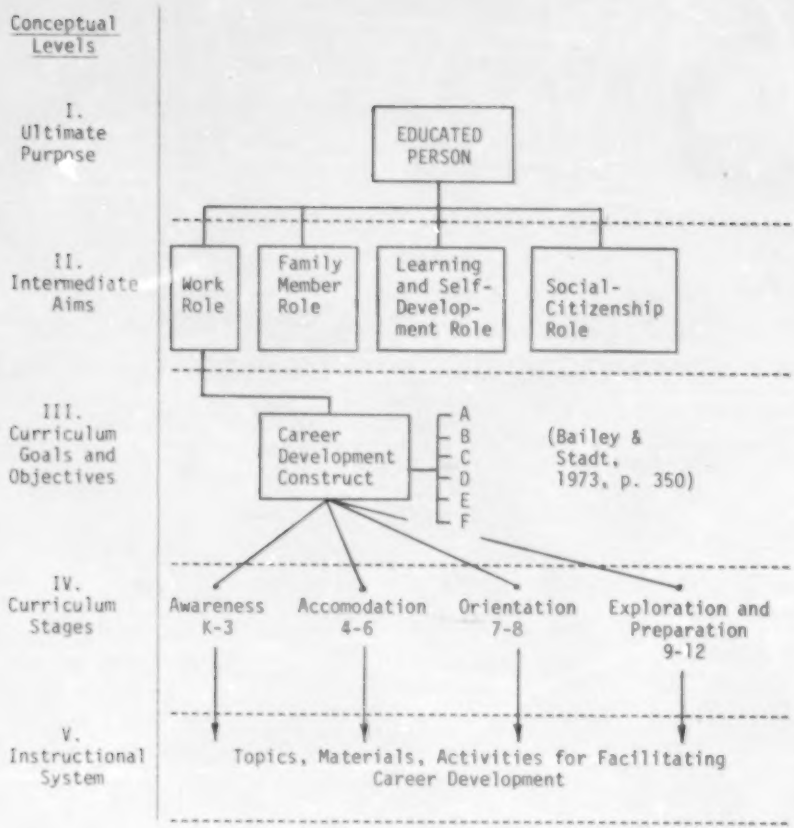

Figure 2.

A Process-Oriented Career Education Curriculum Paradigm

discussed in Chapter Five is the first written statement of the author's theoretical position. It will now be illustrated how the author's previously developed career education curriculum model can be merged with his more recent attempt to develop a broader education paradigm deduced from educational theory.

The resultant paradigm illustrated in Figure 2, reveals how the "top down" approach of deduction and the "bottom up" approach of induction can be combined. The way in which these two approaches have been integrated is simply an artifact of the author's evolving efforts to develop curriculum for career education and not a recommended procedure. That is, had he started initially from a broad theoretical base, this two-step process would not have been necessary. The major implication for the reader should be the suggestion of a grand design for a comprehensive, learner-oriented instructional system which incorporates career education as one of its important parts.

Advancing the Concept of Career Education

The integration of the Bailey and Stadt developmental curriculum model for career education within a broader education design results in the need to better articulate the relationship among the five conceptual levels of the paradigm. The following are suggestive of needed next steps.

To Broaden the Theory and Rationale for Process/Humanistic Education

Level one of the paradigm is based on Cole's conception of the educated person, which, in turn, is derived from the theory of humanistic psychology. This humanistic view of educational purpose could

be augmented by relating to it the various concepts of education contained in Appendix A, particularly the notions of confluent and futuristic education. A synthesis of the commonalities in purpose from among these various approaches would be an important contribution to educational theory.

To Empirically Validate a Finite Number of Life Role Categories

The four categories of life roles illustrated in Figure 2 were synthesized from an examination of the related literature reported in Chapter Five. The four categories seem to have some measure of face validity. If these life roles are to be functionally used as a basis for formulating educational goals and objectives, however, additional validation should be conducted. The concept of role could be investigated through an examination of the literature in sociology, anthropology, and other of the behavioral sciences in an attempt to describe and validate such roles in a fashion similar to what Super (1975) has done for the work role.

To Enhance the Generalizability and Exportability of the Concept of Career Education

The Bailey and Stadt model illustrated in Levels III, IV, and V of Figure 2. could better approximate the stated ideals of both process education and career education. Recent works by Illich (1973), Coleman (1972a, 1972b, 1974), Bruner (1971, 1973), Tiedeman (1975), O'Toole (1975), Olson (1975), Herr and Cramer (1975), RISE Report (1975), and Wirtz (1975) could be used to strengthen the logical-theoretical base for career education. Principles of learning and developmental psychology employed by Bruner, Oliver, and Greenfield (1966), Gagné (1970) and other process-oriented curriculum developers could be used to streng-

then the structure and organization of curriculum stages and goals. Tested principles of curriculum development could also be used to extend the model through three conceptual dimensions.

The first dimension would be the translation and organization of Bailey and Stadt's six domains of behavior into process skills categories. The six domains are already essentially process skills, but could perhaps be better expressed as clusters of skills. For example, Concepts of Self might be translated into "exploring self," "differentiating self from others," "appraising self," "clarifying self," "implementing self," and other skills generally thought to be involved in nurturing strong self concepts. Information Processing Skills might be translated into "classifying data," "gathering or seeking information," "using information to make decisions," "observing and inferring information," etc. Each of these sub-performance skills could then be taught and generalized by designing multiple and varied topics, activities and materials, thus strengthening the functional utility of the skill being instructed by insuring its generalizability.

With respect to the second conceptual dimension, each skill subcategory from the six domains of skill processes could be developed through selection of multiple lessons, activities and topics within and across the four developmental levels of Awareness, Accomodation, Orientation, and Exploration and Preparation. The resulting curriculum would be spiral in nature developing progressively all skills as the curriculum advances in keeping with the child's developmental stage. The given topics, materials, and activities at a given level would, however, stand alone if required to. That is, the student need not

complete Awareness I activities prior to Accommodation II activities, etc.

A third conceptual dimension of the matrix would ensure that each skill category was approached, and students had the option of practicing the skill in multiple modes-- perhaps Bruner's modes of enactive, iconic or symbolic representation (Bruner, Oliver and Greenfield, 1966). The advantage of such an approach is that a given set of skills or concepts could be taught in a variety of ways through primarily different learning modalities. Procedures like this serve to make instruction more varied, motivating and fun. They also increase the likelihood that a particular skill or concept will be apprehended and generalized. Thus a given lesson dealing with a subskill of "interpersonal regard" or the activity of "sharing" might be approached several different times in very different ways. One approach might be a very active physical moving about and sharing of something (enactive). Another approach might be through the use of films, cartoons, plays or skits which present instances of sharing and non-sharing behavior and related antecedents and consequences (iconic). A third approach could be a very rational, logical discussion, exposition, debate or dialogue about sharing (symbolic). It, of course, should be understood that whatever mode is selected, the particular sharing tasks themselves would also be variable. It is possible to share ideas, feelings, friends, fears, concerns, joy, food, tools, space, time and many other things all in enactive, iconic and symbolic ways. The best way to learn a particular skill such as sharing is to share all of these and many more things in all three modes.

One need not use Bruner's three modes of representation although they seem straight foreward and quite appropriate. One could as well use the cognitive operations of Guilford (1967) or some other paradigm which describes different learning modalities. The purpose of using such an approach is to direct the curriculum developer's attention to the wide variety of activities, topics, materials, games, and methods which can be used to instruct a given objective, be it a skill or content outcome.

Collectively the three dimensional paradigm would insure the categorization of a wide array of topics, activities, and materials all designed to give practice in the use of the process skills stated as broad curriculum objectives in multiple and highly diverse situational contexts. Thus, the acquisition of classes of skilled behavior would be more likely to be more generalizable and therefore applicable to the various life activities in which one engages.

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> As we celebrate our 200th year as a nation and contemplate the beginning of our third century, what skills, knowledge, and wisdom should our schools, colleges, and universities be striving to impart to our citizens? This is a difficult question, but we must all be thinking about it for, if education is not functional and result-oriented, it does not justify either confidence or support. (Bell, 1975)

CHAPTER SEVEN

SUMMARY AND IMPLICATIONS

This paper was written for scholars, researchers, curriculum theorists and policymakers in career education. It was an attempt to better understand how education has evolved and to suggest the direction in which education seems to be moving. It is less prescriptive than it is suggestive. It probably raises more issues than it resolves. Following are the major conclusions to be drawn from the research.

1. The theory of humanistic psychology has come to occupy a prominent role in education. The humanistic view of education has evolved steadily since the late 1940's and seems not to have yet reached its peak. The pervasiveness of humanistic psychology is evident in both the theory and practice of education. The myriad calls for educational reform of the past five years, such as the California Commission for Reform of Intermediate and Secondary Education, are clearly calls for "personalizing" learning and for creation of more humanistic and accountable learning evnironments.

2. The relationship between humanism and behaviorism has been shown not to be antithetical. The term "behavioral-humanist" was coined to describe one who advocates humanistic learning outcomes, but who employs behavioristic methods to help facilitate such ends. It could be reasoned that a humanistic education is the essence of accountability.

3. The preoccupation in education with the instructional process is a serious deficiency. A focus on

learners and outcomes has the potential to resolve a great number of issues in education. For example, the question of the relationship among vocational education, career education, and career guidance could be placed in healthy perspective if the goals and objectives of each type of program were stated. It has been suggested in this paper (as well as many other places) that career development theory and research can provide the basis for the formulation of learning outcomes in career education and career guidance.

4. An alternative to means-oriented education has been proposed. This process-oriented curriculum paradigm has as its long-range purpose the development of an "educated person." In order to facilitate the development of such a person, functional life roles have been deduced to provide the basis for program organization and curriculum development. For example, colleges of education, state departments of education, and local school districts could be administratively organized on the basis of life roles rather than on the basis of academic subject areas. The significance of this proposed paradigm is to focus on learners and outcomes rather than on subjects, teachers, programs and other means.

The implications of these conclusions seem obvious to the author and therein may lie the paper's weakness. The author has had little opportunity to discuss his ideas and concepts with others inside or outside of career education. There is a need for the Department of Adult, Vocational and Technical Education to provide an opportunity for professionals in many fields to react to the paper. Relevant questions might include: "What are the implications from the paper for career and vocational education?" "Have the facts and information been interpreted correctly?" "Are alternative conclusions in order?" "What counter-views prevail?" In summary, the same challenge is issued at the end of this paper that was used in its beginning. The author invites his colleagues to join with him in a dialogue and consideration of the ideas presented with

a view toward developing a more humanistic educational system.

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